

Amendments to the Specification:

Please replace the paragraph beginning on Page 6, line 26 and ending on Page 7, line 2 with the following marked up paragraph:

Referring to Figure 3, the test plates are assembled to form a test assembly 40 by clamping together the coated first plate 10 and the second plate 20 such that the sealant material layer 30 is positioned between the test plates 10,20. Referring to Figure 4, a fastener hole 50 is drilled through the thickness of the test assembly 40. The preferred fastener hole is 0.250-inch diameter. The fastener hole 50 is preferably drilled through the first and second plates 10, 20 before the sealant material is applied to the test surfaces. Pre-drilling eliminates problems with the generation of interlaminar burrs at the edge of the hole produced during hole drilling operation. Alternatively, the first plate 10 and second plate 20 may be drilled subsequent to assembly of the test assembly 40. Referring to Figure 5, more than one fastener hole may be drilled if multiple fasteners are to be used in the test assembly.

Please replace the paragraph beginning on Page 8, line 5 and ending on Page 8, line 11 with the following marked up paragraph:

After application of the installation torque, the length of the male fastener component 60 is immediately re-measured for overall length. The initial compression of the test assembly 40 will result in elongation of the male fastener component 60 of the fastener assembly 58. For instance, a torque of about 120 in-lbs applied to a 0.250-inch diameter, 4-inch long, 6Al-4V titanium bolt results in an initial elongation of approximately 0.002 inch. The initial elongation of the fastener component is advantageously measured to the fourth decimal place.

Please replace the three paragraphs beginning on Page 10, line 19 and ending on Page 11, line 5 with the following marked up paragraphs:

Three single-fastener test assemblies, similar to that shown in Figure 6, were prepared that used 1.5-inch square by 0.156-inch thick 7075-T6 aluminum test plates as both the first and second test plates.

Mating surfaces of both the first and second test plates were anodized and coated with a self-etching primer. First test plates were sprayed with Hi-Kote F/S™ sealant material, available

from Hi-Shear Corp., Torrance California, to achieve a coating material test thickness of about 0.006 inch. Test assembly took place several weeks after the actual application of Hi-Kote F/S™ to the first plates. Test plates were assembled by clamping together the coated first plate and the uncoated second plate, and drilling 0.250-inch holes through both test plates and the sealant material coating. The drilled hole was located directly in the center of each test plate.

Fasteners used in the test assemblies were standard 0.250-inch diameter, 4 inch long, hexagonal-head 6AL-4V titanium bolts, with 0.5-inch nominal grip length available as part BACB30NM4K8 from Huck International, Inc., located in Carson, CA. Small index holes were drilled in each end of the fasteners to aid in alignment of the micrometers. The lengths of the bolts were initially measured to 4 decimal places using a digital micrometer. Methods of accurately measuring the lengths of ~~to~~ the bolts are known in the art, as demonstrated in NASM1312-17© testing specification ~~Standard Practice~~, available from the Aerospace Industries Association of America, Inc. Washers, 0.06 inch thick, were placed on either side of the test assemblies. MS21042L nuts, available from Spencer Aircraft, Puyallup, WA, were used on the bolts.

Please replace the paragraph beginning on Page 11, line 29 and ending on Page 11, line 33 with the following marked up paragraph:

A series of three multiple-fastener specimen assemblies similar to that shown in Figure 7, were prepared that used a 1.5 inch x 5 inch x 0.156-inch thick 7075-T6 aluminum first plate with five ~~5~~ 0.250-inch diameter fasteners equally spaced using 4D standard spacing. The first plates 10 were fastened to 0.250-inch thick 7075-T6 second plates 20. The second plates 20 were slightly larger than the first plates 10.

Please replace the paragraph beginning on Page 12, line 7 and ending on Page 12, line 17 with the following marked up paragraph:

Test assemblies were made using a wet-sealant material generally using the same method as specified with respect to the preceding multiple-fastener example except as otherwise specified below. The mating surfaces of both the first and second upper plates were cleaned, anodized, and coated with a self-etching primer. Wet-sealant material test plates were drilled

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before the wet-sealant material was applied. Wet-sealant material, in this case P/S 870 Class C-2 sealant available from PPG Aerospace, Pittsburgh, PA, was applied to the first test plates with a brush sealant applicator and combed with a combed tooth sealant applicator such that the peaks are about 0.010-inch thick. Test plates were then assembled by clamping together the coated first plate and the uncoated second plate, and inserting a bolt through the test plates and attaching a washer and nut, and applying hand tightening to the bolt.